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United States Department of Agriculture,

BUREAU OF BIOLOGICAL SURVEY.

E. W. NELSON, Chief of Bureau.

INSTRUCTIONS FOR MAKING BIRD COUNT, 1917.

Each person receiving this pamphlet is invited to aid in counting the birds breeding this summer on some area or areas selected to represent fairly the average farm conditions, but without much woodland. The tract should contain not less than 40 acres—a quarter of a mile square—nor more than 80 acres, and should include the farm buildings, with the usual shade trees, orchards, etc., as well as fields of plowed land and of pasture or meadow. Persons who have made counts in previous years are requested to repeat the work on the same areas. New areas covered should be so selected, if possible, that the physical conditions will not be much changed for several years. If succeeding annual counts show changes in the bird population, it will thus be known that they are not due to changed environment.

What is wanted is a count of the pairs of birds actually nesting within the selected area. Birds that merely visit the area for feeding purposes must not be counted, no matter how close their nests are to the boundary lines.

In making this count it is a good plan to begin at daylight on some morning during the last week of May or the first week in June, and zigzag back and forth across the area, counting the male birds. Early in the morning every male bird is usually in full song, and at that season can safely be considered to represent a breeding pair. The results of one day should be checked and revised by several days of further work in order to insure that each bird counted is actually nesting within the area, and to make certain that no species has been overlooked.

The height of the breeding season should be chosen for this work. In the latitude of Washington, D. C.—latitude 39°—May 30 is about the proper date for the first count. In the latitude of Boston the work should not begin for a week later, while south of Washington an earlier date should be chosen. In any locality a date should be selected shortly after the close of migration and during the early part of the nesting season.

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The final results of the count should be sent to this bureau about June 30, and should be accompanied by a statement of the exact boundaries of the area covered, defined so explicitly that it will be possible 25 years hence to have the count repeated. The name of the present owner should be given, together with a careful description of the character of the land, including a statement of whether the area is dry upland or moist bottom land; the number of acres in each of the principal crops, or in permanent meadow, pasture, orchard, swamp, roads, etc.; the kind of fencing used; and whether there is much or little brush along any fences, roads, or streams, or in the permanent pasture.

If there is an isolated piece of woodland comprising 10 to 20 acres conveniently near, a separate count of the birds nesting therein will also be useful. In this case the report, in addition to the size and exact boundaries of the wooded tract, should state the principal kinds of trees and whether there is much or little undergrowth.

A third count asked for is that of some definite timbered area—40 acres for instance—forming a part of a much larger tract of timber, either deciduous or evergreen.

Still a fourth count, supplementary to those made during the past three years, is desired. The average farm in the Northeastern States contains about 100 acres, and the average count hitherto received gives the number of birds nesting on the 50 acres of the farm nearest to and including the farm buildings. It is the purpose during 1917 to obtain counts on the remainder of the farm, the wilder part containing no buildings, especially on the same farms where the counts about the buildings have already been made.

Furthermore, counts on any other kinds of land are much desired for comparison.

These several kinds of bird counts are needed for a study of the relative abundance and shifting numbers of birds under changing or stationary conditions, and as a basis for determining what effect present State and Federal laws may have on the increase of game and insectivorous birds. It is hoped that many persons interested in bird life will make one or more counts this season. As the department has no funds to pay for this work, it must depend wholly on voluntary observers. Additional report blanks will be furnished on request.

E. W. Nelson.
Chief, Biological Survey.

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